

WHODUNNIT?  
ACCESSIBILITY OF BLAMEWORTHINESS IN THE FIRESTONE TIRE RECALL

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ABSTRACT

Two experiments were conducted to examine consumers' perceptions of blame in the Firestone Tire recall. The extent to which knowledge about Ford or Firestone's role in the recall was accessible to consumers was manipulated. The results suggest that subtle cues can influence perceptions of blame of a company indirectly involved in a recall but only when consumers have considerable knowledge to draw on.

INTRODUCTION

On August 9, 2000, Bridgestone/Firestone recalled about 6.5 million tires and stimulated a media frenzy over the causes of that product's failure. This product recall case, one of the most notorious in recent years, eventually involved the recall of a total of 13 million Firestone 15 inch AT, ATX, ATX II and Wilderness AT tires at considerable cost to both Firestone and Ford (Lavelle, 2001). The vehicle accidents that occurred, especially in Ford SUVs fitted with Firestone tires, led to 203 deaths, over 700 injuries and 6000 complaints (Yancho, 2001).

Since the first recall announcement in August 2000, newspapers and magazines have continued to report the ongoing debate about who is to blame for the accidents and why. Although initially it appeared obvious that it was the Firestone tires that were the main source of danger to consumers, numerous media reports following the recall suggested that Ford deserved some part of the blame. Even a year after the recall, on August 9, 2001, Tadakazu Harda, Vice President of overseas operations, Bridgestone Tires (parent company of Firestone Tires), was quoted as saying "No specific problem was found with the design or production method of our tires." Firestone attributed most of the failures to "tire damage or to under inflation" (Consumer Reports 2000, p. 10), essentially placing the blame for the accidents on the driver and Ford since Ford had recommended lower tire inflation in their instructions to Explorer owners than did Firestone. Ford however claimed that the "accidents were caused by bad Firestones" (Jones, 2000, p. C1). Although this corporate mudslinging appeared partly for the benefit of Congress, government regulators and those potentially involved in litigation, some of the messages seem to have been disseminated with the aim of influencing consumers' opinions.

The intense media coverage and alternative explanations for product problems prompted us to investigate how consumers used the information available to them, whom they blamed and the effects on desires to punish the companies and on corporate reputations. In September, 2000, within a month of the first tire recalls, we conducted an experiment in which we manipulated the accessibility of knowledge about Ford and Firestone's role in the tire recall. In September 2001, a year after the first experiment, we conducted a similar study to examine whether the lower

accessibility of information due to the passage of time and the decay for the details of the incident affected the attribution of blame. We hypothesized that accessibility would have a different effect on blame for Ford - the company indirectly involved in the recall – than on Firestone. Accessibility should also influence consumers' desire to punish a company for product problems and consumers' perceptions of the company (corporate reputation).

## ACCESSIBILITY AND JUDGMENTS OF BLAME

Our focus in this paper is on understanding when the accessibility of the perpetrator's actions and knowledge about the incident influences blame for product problems. Perceptions may be fairly straightforward for most product recalls. Merely by recalling the product the manufacturer seems to accept blame for the problem. For example, judgments of Firestone's blameworthiness seem rather simple to make because Firestone is accountable for the tires they manufacture. However, perceptions about the blameworthiness of other corporate entities that are not directly linked to the recall may be less straightforward. In such cases, consumers may arrive at blame judgments through more complex inferences. The research on blame attributions suggests that the perception of blame is closely linked to the perceived degree of control and the intent of the entities involved (Shaver, 1985). For example, judgments of Ford's blameworthiness in the tire recall seem to be more difficult because the many different facets of their relationship with Firestone could lead to varying inferences about intentionality and controllability.

A consequence of the greater complexity of blame judgments when a company has an indirect involvement in a recall is that those judgments may be more dependent on the particular knowledge that is accessible at the time of judgment. Judgments are often dependent on the subset of information that is currently available (Tourangeau and Rasinski 1988; Tversky and Kahneman 1973). Stored knowledge can be activated from memory by a variety of rather subtle techniques. For example, survey research indicates that merely asking questions can lead a respondent to recruit information from memory that then changes the response to subsequent questions (e.g., Tourangeau and Rasinski 1988).

The research presented here examines effects of knowledge accessibility on blame when people have considerable knowledge that might be accessible for such judgments. That condition certainly held true as a consequence of the media blitz about the Firestone tire recall. We hypothesized that asking a question about the role of a corporate entity indirectly linked with the product recall would make previously acquired knowledge about that entity's blameworthy actions more accessible, increasing judgments of blameworthiness. More specifically, consumers asked to explain Ford's actions in the Firestone tire recall should respond to a later question about the extent to which Ford is to blame by blaming Ford more than when not asked specifically about Ford. In contrast, questions asking for an explanation for the reason for the recall without priming the particular corporate entity should make knowledge about the actions of multiple entities (e.g., the company recalling the product, the product's user) accessible. For example, a question asking consumers to explain the problem without specific reference to Ford should lead to perceptions of less blameworthiness of Ford compared to when knowledge about Ford has been activated.

Further, asking a question about the role of a corporate entity recalling the product should have no effect on perceptions of that entity's blameworthiness. When the product's brand is strongly linked to the company (e.g., as Firestone/Bridgestone is with Firestone tires), that knowledge is sufficient to infer blame. Greater accessibility should have no impact. For example, when asked to explain Firestone's actions, a consumer should blame Firestone to a similar extent as when asked to explain Ford's actions or when asked to explain the event without reference to a specific corporate entity.

Those effects on perceptions of blame gain importance because research on moral evaluation suggests that punishment and perceptions of blame are closely linked in a consumer's mind (Graham, Weiner and Zucker 1998; Shaver 1985). People who blame an entity for harm want to punish that individual more than one who is thought to be less to blame (Graham et al, 1998; Shaver 1985). Increasing the accessibility of knowledge of an indirectly involved company should increase the desire to fine that firm more and should also be related to more negative perceptions of the firm. Recalls can have a detrimental impact on corporate reputations (Jackson and Morgan 1988). Being a trustworthy company suggests moral integrity, confidence in another's goodwill, and having the customer's best interest at heart (Doney and Cannon 1997; Hwang and Burgers 1997; Morgan and Hunt 1994). When corporate harm doing is seen as under the control of the firm, confidence in the firm's goodwill and beliefs that the customer's best interests are at heart are undermined.

## STUDY ONE

In this experiment we manipulated the accessibility of stored knowledge about the company recalling the product (Firestone) and a company indirectly involved in the recall (Ford). We examined perceptions of blame for these two entities, as well as consequences for punishment and corporate reputation.

H1: Increasing the accessibility of information about the corporation indirectly involved in the recall increases blame placed on the corporation, punishment of the corporation and negative perceptions of the corporate reputation.

H2: Increasing the accessibility of information about the corporation directly involved in the recall has no effect on blame, punishment and corporate reputation.

## Method

Subjects were 60 university students who were recruited on the campus and paid for participating in the study. The questionnaire stated that Firestone tires on Ford Explorer SUV's had been recalled. In the three versions of the questionnaire, subjects were asked to "think about the time before the recall began." Two conditions manipulated the accessibility of the firm's actions. In the Firestone condition subjects were to "explain why you think Firestone Tire Company would continue to sell Firestone tires to Ford Motor Company for their Explorer SUV's when they knew the accidents were occurring." In the Ford condition subjects explained why "Ford Motor Company would continue to sell Explorer SUV's with Firestone tires when they knew that accidents were occurring." In the control condition subjects were asked to provide a general explanation about "why you think that accidents were occurring". Subjects were asked to think

about the issue and to respond to an open-ended item to increase involvement and the opportunity to recruit information from memory.

The students completed a questionnaire asking about their opinions about the Firestone tire recall. For each entity, the respondents indicated, “How much blame should be placed on Ford/Firestone/the individual drivers for the accidents” (1 = none at all, 9= all the blame). The desire to punish the companies was measured by asking “In your opinion, should the U.S. government fine Ford/Firestone because of the accidents” (1= should, 9= should not). The U.S. government was identified as the entity fining the firm because of the congressional hearings’ discussion of such a remedy. There was no mention of the victims’ receiving the fine so that the measure would not reflect a desire to aid the injured as opposed to punishing the firms. Corporate reputation was measured by two items. Respondents were asked, “Do you think Ford Motor Company/Firestone Tire Company is a good or bad company,” (1= very good, 9=very bad), and “Do you think that Ford Motor Company/Firestone Tire Company is or is not a trustworthy company,” (1= trustworthy, 9= not trustworthy) ( $r = .73$  for the Ford index and  $r = .65$  for the Firestone index).

In addition, general information was collected on product usage and knowledge about the recall. We collected data on ownership of Ford SUV’s “Do you typically ride in or drive a Ford Explorer?”, Ford cars “Do you typically ride in or drive a car made by Ford?” and Firestone tires “Do any of the cars you typically ride in or drive have Firestone tires?”. Since we assumed that subjects must have knowledge about the recall for accessibility to influence blame, we assessed subjective knowledge about the tire recalls. Subjects were asked, “how well informed are you about the tire-related accidents?” (1= not at all and 9= extremely). The level of self-reported knowledge about the tire recalls was moderately high and did not differ across conditions ( $M=5.23$ ).

## Results

Open-ended responses to the question were examined to confirm that the manipulation influenced the accessibility of knowledge about the company’s blameworthy actions. In the Firestone condition, 65% of subjects’ open-ended responses suggested that the company intentionally sold products they thought could cause injury (e.g., 65% ). In the Ford condition, 50% of subjects’ open-ended responses suggested that the company intentionally sold products they thought could cause injury (e.g., “I think the bottom line had to be money. Ford probably put profit over safety. Only when there was sufficient public outcry did Ford decide to do something”). In a control condition, 20 subjects were asked to “explain why you think that accidents were occurring” in the time period before the recall began. Examination of those open-ended responses suggests that the delay was not a salient contributor to the accidents for most participants. Only 20% of the responses mentioned that one or both companies were aware of the defects but sold the tires anyway.

Table 1 shows the means for the two corporate accessibility conditions and the control condition, as well as the  $F$ ’s from a one-way ANOVA across the three conditions. Comparisons between just the Firestone and the Explanation Control conditions were not significant. Consistent with

H2, the students blamed Firestone for the accidents regardless of whether information about Firestone was accessible (see Table 1). Consistent with H1, differences in accessibility influenced perceptions of the Ford. When Ford's actions were accessible, Ford was perceived as more to blame than when Firestone's actions were accessible,  $F(1, 39) = 4.57, p < .05$ . However, ratings of Firestone's blame did not decrease, nor were ratings of driver blame affected ( $M = 2.85$  vs.  $2.4$ ) (Table 1).

Insert Table 1 about here

The results for the punishment measures were similar to those for blame. When Ford's accessibility increased, there was a marginally significant increase in the desire to fine Ford compared to when Firestone's accessibility increased,  $F(1, 38) = 3.19, p < .09$ . Accessibility of information about Firestone had no effect on the desire to fine Firestone (see Table 1). Similarly, the results indicated that the corporate reputation of Ford was significantly more tarnished when information about Ford was accessible compared to when information about Firestone was accessible,  $F(1, 38) = 6.31, p < .05$ . As with the other factors, Firestone's accessibility had no significant effect on the corporate reputation of Firestone. Whether the subject owned a Ford Explorer (18.3% responded "Yes"), Ford Car (35% responded "Yes") or had Firestone tires (18.3% responded "Yes", 63.3% responded "No" and 18.3% responded "I don't know") were used as covariates in the above analyses but did not reveal any significant results.

## Discussion

The overall results indicate that questions about Ford's role in the product failure increased perceptions of blame placed on that entity compared to when a more general question was asked or when the question focused on Firestone's role. Further, when people were asked to explain Ford's involvement in the tire recall issue, they were more negative toward Ford and felt that Ford deserved greater punishment. However, the effect did not hold true for the more obviously blameworthy corporation, Firestone. At the time of the study (September 2000), the recall of tires by Firestone implied that the tires were the source of danger to consumers and therefore more strongly implicated Firestone as the culprit.

On the other hand, blame of Firestone was so high that perhaps there was a ceiling effect. It is also possible that the order of the rating scale questions diminished the effect on Firestone blame. The questionnaire asked about Ford's blame before Firestone's and so may have made Ford's role more accessible, decreasing the impact of the previous, open-ended question. However, other research suggests that attributions of Ford and Firestone blame are not complementary (Folkes and Patrick 2001). Blame attributions are not correlated, so that increasing Ford's blame does not appear to decrease Firestone's blame. An alternative explanation for the Ford results is that they are not due to the accessibility of stored information but instead are due to demand characteristics. The question about Ford may have implied that Ford acted wrongly and that subjects should perceive Ford as more blameworthy when they otherwise would not have. This possibility was explored in Study Two.

## STUDY TWO

The objective of this study was to examine whether the lower accessibility of information due to the passage of time and memory decay for the details of the recall would eliminate the effect of the question on attributions of blame. In contrast, if the results are due to demand characteristics in Study One, then the effect of posing the question on blame found in Study One should be replicated in Study Two, despite the passage of time.

### Method

A year after the first study (between Sept. 1 and Sept. 7, 2001) we conducted a similar experiment in which 60 students completed one of two versions of a questionnaire, the Ford-delay condition and the control (general explanation) condition. Similar to Study One's Ford condition, 30 university students were asked to write an explanation as to why Ford would continue to sell Explorer SUV's with Firestone tires despite being aware of the accidents. In the control condition, 30 university students were simply asked to provide a general explanation as to why they thought the accidents were occurring. The dependant measures were similar to those in Study 1.

Insert Table 2 about here

### Results and Discussion

The means in Table 2 reveal no difference in the blame attributions, the desire to fine or the corporate reputations of Ford and Firestone in the two conditions. However, the level of self-reported knowledge regarding the tire recalls was lower than in Study One ( $M=3.56$  vs.  $5.23$ ,  $t(59) = 4.78$ ,  $p < .001$ ). Over half (56.7%) of the sample reporting extremely low knowledge about the incident compared to Study One, where only 16.7% reported low knowledge about the incidents. It is possible that this lack of knowledge due to memory decay since the first tire recalls reduced the accessibility of information that could be used in attributing blame and was the reason for the non-significant differences in blame attributions for Ford.

An alternative explanation for the results is that subjects acquired knowledge about Ford in the interim between the studies that created more negative attitudes toward Ford, and that those negative attitudes increased perceptions of blame so that accessibility had no effect. However, the two experiments did not differ on perceptions of Ford's reputations (or on any of the measures) in the control condition (when respondents were merely asked to give a general explanation). It is also possible that the mere passage of time made attitudes more confidently and strongly held. The lack of difference could have been observed because blame judgments were recalled rather than constructed on the basis of the information retrieved at the time. Another possible explanation is that increasing the accessibility of information about Ford in 2000 may have also increased the accessibility of negative affect, which, in turn, influenced blame perceptions. The negative affect may have diminished by the following year and diminished blame as well. An obvious disadvantage of our methodology is that examining a real world event decreases the ability to control variables possible in a more artificial context.

## CONCLUSIONS

Ingredient branding (e.g., Firestone tires as an ingredient of a Ford Explorer) is increasingly employed by marketers (Desai and Keller 2002). Although the benefits of an ingredient branding strategy have been emphasized, there are also risks. Our two experiments suggest that product related dangers elicit blame not only of the firm that manufactures the recalled product (in our case, an ingredient) but also the host brand. Hence, firms need to be vigilant about products they distribute or incorporate into their own products but do not themselves manufacture if they wish to protect their reputation. Further, concern about consumers' exposure to negative information is also justified. Study One showed that merely making Ford's role in the recalls accessible was sufficient to elicit more negative responses from consumers.

Each year hundreds of products are recalled, with some industries experiencing them more often than others. However, in each recall, there are major and minor players. While, most often, there is no escaping blame or a damaged reputation for the major player, very little attention has been paid to the consequences of involvement for the minor player, whether host product, co-brand or ingredient brand. Our research is perhaps the first that provides interesting insights for crisis management by a minor culprit. These studies suggest that actions taken by the corporations to reduce the accessibility of the minor culprit's blameworthy behaviors (e.g. Ford's advertising the steps consumers should take to replace the recalled product) may, initially, backfire and work to make its role more accessible to consumers, thereby implicating the corporation further.

There are some important limitations of this research that must be addressed. First, the study focuses on a particular product recall incident. The Firestone tire recall began as just one of the hundreds of products recalled by Federal agencies each year. However, the numerous deaths and accidents associated with the recalls and the severing of ties between Ford and Firestone, two major global players, make this case unique. Accessibility may be less important in less publicized cases. A second limitation is that our fairly small convenience sample is not representative. Nevertheless, the apportionment of blame between the two corporations is consistent with surveys of consumer responses to the firms in the months following the recall.

## REFERENCES

- Consumer Reports (2000), "Firestone Tires: The Firestorm Continues," 65 (November), 2000.
- Desai, Kalpesh K., and Kevin L. Keller (2002), "The Effects of Ingredient Branding Strategies on Host Brand Extendability," *Journal of Marketing*, 66 (January), 73-93.
- Doney, Patricia M., and Joseph P. Cannon (1997), "An Examination of the Nature of Trust in Buyer-Seller Relationships," *Journal of Marketing*, 61 (April), 35-51.
- Folkes, Valerie S., and Vanessa M. Patrick (2001), "Consumers' Perceptions of Blame in the Firestone Tire Recall," *Marketing and Public Policy Conference Proceedings*.
- Graham, Sandra, Bernard Weiner, and Gail Zucker (1998), "An Attributional Analysis of Punishment Goals and Public Reactions to O.J. Simpson," *Personality and Social Psychology Bulletin*, 23(4), 331-347.
- Hwang, Peter, and Willem P. Burgers (1997), "Properties of Trust: An Analytical View," *Organizational Behavior and Human Decision Processes*, 69 (January), 67-73.
- Jackson, George C., and Fred W. Morgan (1988), "Responding to Recall Requests: A Strategy for Managing Goods Withdrawal," *Journal of Public Policy and Marketing*, 152-165.
- Jones, Terril Yue (2000), "Explorer Sales Rise Despite Tire Problems," *Los Angeles Times*, October 4, C1-4
- Lavelle, Marianne (2001), "Ford v. Firestone," *US News*, June 4.
- Morgan, Robert M., and Shelby D. Hunt (1994), "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, 58 (July), 3, 20-39.
- Shaver, Kelly (1985), *The Attribution of Blame*. New York: Springer-Verlag.
- Tourangeau, Roger and Kenneth A. Rasinski (1988), "Cognitive Processes Underlying Context Effects in Attitude Measurement," *Psychological Bulletin* 103, 299-314.
- Tversky, Amos, and Daniel Kahneman (1973), "Availability: A Heuristic for Judging Frequency and Probability," *Cognitive Psychology*, 5, 207-232.
- Yancho, Carol. (2001), "Firestone Faces First Trial Since Recall", [www.cnn.com](http://www.cnn.com), Aug. 13.



TABLE 1  
MEANS AND F-VALUES FOR STUDY ONE

Dependent Measures <sup>a</sup>	Ford's Role Accessible	Firestone's Role Accessible	Explanation Control	F (1,57)
Blame Ford	6.00	4.50	5.05	4.57*
Blame Firestone	7.25	7.45	7.60	0.19
Blame driver	2.45	2.40	2.85	0.01
Fine Ford	3.70	5.15	5.50	3.09**
Fine Firestone	2.85	2.40	3.70	0.41
Corporate reputation of Ford	5.35	3.62	4.12	8.84*
Corporate reputation of Firestone	6.42	6.20	5.22	0.19
n	20	20	20	

<sup>a</sup> Higher means indicate greater blame, less desire to fine the company and lower corporate reputation.

\*  $p < .05$

\*\*  $p < .10$

TABLE 2  
MEANS AND F-VALUES FOR STUDY TWO

Dependent Measures <sup>a</sup>	Ford's Role Accessible	Explanation Control	F (1, 58)
Blame Ford	5.16	5.53	0.46
Blame Firestone	6.4	6.9	1.11
Blame driver	3.46	3.46	1.0
Fine Ford	4.77	4.87	0.02
Fine Firestone	4.33	4.20	0.04
Corporate reputation of Ford	4.10	4.23	0.09
Corporate reputation of Firestone	4.83	5.10	0.28
n	30	30	

<sup>a</sup> Higher means indicate greater blame, less desire to fine the company and lower corporate reputation.

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